The International Journal for

THE EDUCATION OF THE BLIND

The Official Publication of the
AMERICAN ASSOCIATION OF INSTRUCTORS OF THE BLIND
A Magazine for
Teachers and Parents of Visually Handicapped Children

CONTENTS

Page

The Education of the Blind in Western Europe—
Wallace W. Taylor 25

Some Aspects of Blindness — *Wilbert Paul Tyler* 32

The President's Corner — *Donald W. Overbeay* 36

Sawdust from the Board — *Maurice Olsen* 36

Is Music of Therapeutic Value to the Blind —
John Meldrum 38

Readability of Large Types — *Carson Y. Nolan, Ph.D.* 41

Teaching Arithmetic to the Partially Seeing —
Helen Auerbach 44

To Put It Briefly — *V. R. Carter* 46

Vol. IX
No. 2
December
1959

The International Journal for
THE EDUCATION OF THE BLIND, INC.

The International Journal for

THE EDUCATION OF THE BLIND, INC.

V. R. Carter, M.Ed., *Editor*
3300 Gibson Street, Muskogee, Oklahoma

Marjorie S. Hooper, *Managing Editor*
1839 Frankfort Avenue, Louisville 6, Kentucky

Assistant Editors

William H. English
Joseph J. Kerr, M.S.
Paul J. Langan
Paul C. Mitchell, M.A.
Donald W. Overbeay, M.A.
Egbert N. Peeler, M.A.

Associate Editors

Samuel C. Ashcroft, M.A.
J. M. Woolly, M.S.
Marjorie S. Hooper
Dorothy Petrucci

THE INTERNATIONAL JOURNAL FOR THE EDUCATION OF THE BLIND is published four times a year, during the months of October, December, March, and May, by the International Journal for the Education of the Blind, Inc., 1839 Frankfort Avenue, Louisville 6, Kentucky.

ADDRESS MAIL FOR: Subscriptions, Change of Address, and Forms 3579, to 1839 Frankfort Avenue, Louisville 6, Kentucky.

Second-Class postage paid at Louisville, Kentucky.

Subscription price, for either Braille or ink-print edition, $3.00 (foreign postage, 15c additional) per year. Subscriptions to the magazine are included in the membership fees of all members of the American Association of Instructors of the Blind at the special rate of $1.50 per year.

THE INTERNATIONAL JOURNAL FOR THE EDUCATION OF THE BLIND is a professional magazine of methods, techniques and research for teachers and parents of visually handicapped children and other workers in the field of the blind. This publication is incorporated under the laws of the State of New York and is copyrighted in the Copyright Office of The Library of Congress, Washington, D. C. The Journal is a medium for the free expression of the progress or the need for progress in the field of the blind. It is the intention of the editors to provide opportunity for the free exchange of ideas, suggestions, and achievements in the area of the education of visually handicapped children; to disseminate information and findings of research and experiment relative to the methods and techniques of teaching and training of blind children; to give recognition (through awards or otherwise) for outstanding contribution and service to the blind; and to report current activities in schools where children who are blind are educated. The editors hope that a greater national and international consciousness and understanding of the problems of the blind can be brought to the attention of the public through such a professional periodical, and in general stimulate interest and creative effort and encourage thoughtful and enlightened endeavor to achieve this end.

Copyright, 1959, by
THE INTERNATIONAL JOURNAL FOR THE EDUCATION OF THE BLIND, INC.

The Education of the Blind in Western Europe

By Wallace W. Taylor, Professor of Education

State University College for Teachers, Albany, New York

and

Isabelle Wagner Taylor, Chairman, Department of Psychology

Russell Sage College, Troy, New York

In nearly all the countries of Western Europe, the first institutions for handicapped persons were those for the blind and for the deaf. In England, Italy, and Poland an institution for the blind was established before one for the deaf.

Most of the original institutions for the blind were established in the 19th century. In three countries such institutions were founded as early as the latter part of the 18th century. The first was founded in Paris in 1784 by Valentin Haüy, a pioneer in the education of the blind. Others followed in England in 1790 and in Scotland in 1793.

Like other early institutions for the handicapped, these establishments were at first merely custodial in nature; they gradually incorporated vocational training and eventually academic education. In many instances, the mentally, physically, and emotionally handicapped were cared for in the same institutions. Even today in some countries, such as France and Belgium, there are still establishments for the blind where people with a great variety of handicaps are included.

Segregation by handicap slowly developed as a general policy, but the grouping of the blind with the deaf persisted for some time. The first institution for any category of the handicapped in Sweden (1808) was for both the blind and deaf. Only in Belgium are there still a number of institutions which combine these two groups. Poland and Ireland have dual schools for the blind and deaf, but in no other country is such a combined institution now reported.

Segregation of the blind necessitated clearer definitions of blindness. At present these definitions vary to a considerable extent. Many countries have no medical, legal, or educational definitions that are used throughout the country.

There is a tendency today, as in England, to use more flexible, functional definitions in terms of educability, recognizing other factors such as intelligence, motivation, and supplementary characteristics of the visual deficiency, rather than, as formerly, to define blindness in rigid ophthalmological terms. This permits the best placement of the individual child. For example, England and Wales define blind pupils as those who have no sight or whose sight is, or is likely to become, so defective that they require education by methods not in-

The material for this article is taken from a study of the education of physically handicapped children in Western Europe, conducted under the auspices of the International Society for the Welfare of Cripples and the International Union for Child Welfare, with the endorsement of UNESCO and financial support from the World Rehabilitation Fund, the Association for the Aid of Crippled Children, the Easter Seal Research Foundation of the National Society for Crippled Children and Adults, and the National Foundation. The study contains data from Austria, Belgium, Denmark, England and Wales, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Northern Ireland, Norway, Poland, Portugal, Scotland, Spain, Sweden, Switzerland, and Yugoslavia. The groups studied included the blind and partially sighted, the deaf and hard-of-hearing, the speech handicapped, those with neuromuscular disabilities, the cerebral palsied, the epileptic, the delicate, and the multiply handicapped.

A series of articles dealing with special education in a number of individual countries is appearing in the journal *Exceptional Children*. The complete report is scheduled for publication by the International Society for the Welfare of Cripples in early 1960.

volving the use of sight. Ireland, Northern Ireland, and Scotland have followed England's lead in employing this definition.

Some countries still depend largely on a specific definition. Belgium incorporated into law as recently as 1958 a definition of blindness as "visual acuity after correction equal to or less than 1/10 of normal vision, or a visual field equal to or less than 20 degrees," even though in actual practice other factors are usually considered. Similarly, France, Greece, and Italy stress the concept of blindness as vision which is less than 1/10 of normal.

Rarely is blindness defined in terms of total lack of sight. This is the case in Portugal, except in a small school founded in Lisbon in 1958 which admits some pupils who have a little residual vision but not enough to be admitted to classes or schools for the partially sighted. Before that time, this "in-between" group was accepted neither in schools for the blind nor in those for the partially sighted.

In general, it appears that rigid definitions tend to reflect a situation where services for the blind are limited, and where a specific definition serves as a screening device to allocate to the most seriously handicapped such opportunities as are available. Flexible definitions, on the other hand, encourage the maximum placement of blind children..

Although incidence figures for the blind are probably more accurate than for any other group of the handicapped, it is still difficult to obtain reliable data because reporting is not obligatory in most countries, and no central register is maintained. In several countries, voluntary societies have the best statistics which have been collected incidental to the planning and providing of services for the blind. Government officials in Greece, Switzerland, and Yugoslavia, for example, concede that the statistics of the voluntary societies are the ones they use for their own planning.

In Finland, Poland, Spain, and Switzerland, data have been secured in connection with a national population census in which questions about certain types of disability, including the blind, were asked. Occasionally, a special study has been conducted by a government department or by a voluntary group which also adds to the information available.

Some of the northern countries have adopted a system of compulsory notification or recording of handicaps. In Sweden, for example, registration of the blind has been compulsory since 1896. In England, the records legally required of local education authorities include data on the handicapped. Other countries also make it obligatory to report cases of handicapped children, such as Belgium, Denmark, West Germany, Finland, and France. In countries like Austria and Norway, with a widespread network of centers for maternal and child welfare, records are kept and recommendations concerning referrals are made by these agencies. Reporting is also done by the parents, by the physician or specialist treating the child, or by the teacher or school physician if the blindness develops after the child starts to school.

The incidence of blindness due to environmental conditions is decreasing everywhere. The most dramatic drops have occurred in those countries where only recently higher standards of living and improved public health practices have reached the masses of the people. For example, in Portugal there was a decrease of 12.3 per cent in blindness in the decade from 1940 to 1950; in Italy there has been a sharp drop in cases of trachoma, though this disease still constitutes a serious problem in the south, where repeated reinfection is yet fairly common.

On the other hand, retrolental fibroplasia outbreaks have occurred only in the advanced countries that provided incubators for premature babies (as in England in the period from 1948 to 1952), in contrast to the less developed countries where no such cases have been reported.

Blindness among school-age children is almost disappearing in some countries. In Austria, a country of about 7,000,000 people, there are only 4 blind children reported in kindergartens, and 54 in special schools; in the fall of 1958 not a single blind child came of school age.

The total number of blind persons in Europe can only be approximated. Many individual countries depend on estimates for their own planning. Those countries with the most precise data tend to use different bases for classification. In some cases the available data are not broken down into age groups, and, even in the instances where this has been done, the lower age limit may range from birth to 7 years, and the upper limit from 14 to 24. Thus, the lack of comparable figures, either as percentages or as totals, for the various countries makes generalizations difficult. Nevertheless, it is evident that the number of places provided for the special education of the blind is smaller than the actual number needing such services in the southern European countries.

The use of available data is further complicated by the tendency to include the blind and partially sighted in the same institutions in some countries such as Switzerland, and to give figures for these combined groups. The northern countries have tended, not only to separate the blind and the deaf, but also to differentiate between the blind and the partially sighted in making assignments to residential schools.

It is still a common practice to house the blind and the partially sighted together, providing a subdivision for the partially sighted in the form of a special class or section, sometimes on a non-residential basis. Even where blind and partially sighted youngsters are separated at the elementary-school level, they have frequently been placed together in preschool programs.

Special attention is increasingly given to the blind child with other handicaps. Mentally retarded blind children are often placed in special groups for instruction within the institutions for the blind. England and Sweden each has a special residential school for the multiply handicapped blind. In other countries, the child is usually assigned to a special school on the basis of the dominant handicap; in some cases mental retardation is considered dominant, but usually blindness is considered the major disability, and therefore children with various other handicapping conditions are found in most institutions for the blind.

In 13 of the 21 countries, education for the blind is compulsory. Though in a few cases the period of education specified is the same as for the normal child, the length of the period of schooling, whether mandatory or optional, is usually longer, since it is often found necessary to take a longer time to cover the same material found in the regular curriculum, and since, in some instances, vocational training is included in the instructional program of the school for the blind. Formal education may extend over a period of from 7 to 10 years, although it is possible in a number of cases for the youngster to stay in school even longer.

There is increasing recognition of the importance of identifying the blind child at as early an age as possible and of beginning some kind of special instruction, either in the home or in special nursery schools or kindergartens. Some countries, such as Greece and Italy, still have practically no provisions of this kind, others have only one or two such kindergartens, whereas a few countries have more widespread provisions of this kind. England has a system of separate residential Sunshine Nursery Schools for blind children, and in France most institutions for the blind admit children at the age of 3 or 4. The only day kindergarten reported is one in Vienna, Austria, for the blind and partially sighted.

Whether or not kindergartens are pro-

vided, some form of parent-education program is found in most countries, even though the program may not be formally organized. It is generally considered important for the schools to maintain close contact with the parents through weekend visits, special parents' nights or programs, or regular consultations concerning problems arising from the special needs of the blind child.

Special summer courses for parents of blind children are offered in Denmark and Sweden. In the latter country, summer institutes are held during which parents can visit the school attended by their blind child and stay for a week to observe the program. Also the state schools for the blind and the Association of the Blind in Sweden have arranged summer courses for parents dealing with a variety of pertinent subjects.

Some countries distribute special pamphlets explaining the needs of the blind child, and, in a few countries, such as the Netherlands and Switzerland, a social worker may have regular contact with the family before a child is placed in a special school.

Special recreational programs, usually associated with the schools for the blind, are found in nearly every country, although the program is much more ambitious in some than in others. Special branches of the Boy Scouts and Girl Guides for the blind are found in at least ten countries —England, Finland, France, the Netherlands, Northern Ireland, Norway, Poland, Scotland, Sweden, and Yugoslavia, but in a few countries, such as Austria and Spain, the Scouting movement has been developed very little as yet. For the homebound blind child, correspondence affiliation with a troop is sometimes possible occasionally with a tape-recording substituted for a dictated round-robin letter. These scouting programs are usually associated with summer camp but in some countries, as in Austria and Germany, there are camping opportunities provided by other voluntary associations.

Sports activities are in general available to an increasing extent for the blind, with some differences in emphasis, such as swimming in France and skiing in Norway. Activities such as music, carpentry, crafts, gardening, and typing, are frequently emphasized as hobbies rather than as vocations. Institutions may organize clubs of former pupils, though sometimes these provisions are made by voluntary organizations in the community.

There is increasing stress placed on the integration of the blind into the normal world by providing opportunities for blind children to share recreational activities with sighted children, either by having the blind children go outside the school to participate in Scouting activities, camp sessions, or community cultural activities, or by inviting sighted friends to share special activities within the school.

In nearly every instance, the school for the blind is residential, though Portugal is experimenting with a small day school for the blind and partially sighted in Lisbon, and Sweden has a day rehabilitation center in Kristinehamn for 45 pupils over 14 years of age. The day kindergarten for blind and partially sighted children in Vienna is an exception, for such kindergartens, whether separate or attached to institutions for the blind, are customarily residential. In some cases it is possible for blind pupils to attend a school for the blind as day pupils if they live in the vicinity, which may be true when the school is situated in a large city.

A few countries, such as England, Ireland, and Scotland, make provisions for home instruction of the blind. It is rare for the blind child to attend the regular schools, and where this occurs it is usually on the secondary or university level, readers and guides sometimes being provided. For example, an average of about 20 blind youth take university courses in France each year.

In every country some special equip-

ment is used in schools for the blind, which may be special shorthand and typing equipment, dictaphones, maps and diagrams and models in relief with Braille labels, and special libraries for the blind with perhaps both Braille and Talking Books. But American special educators would usually regard the equipment used in European schools for the blind as extremely inadequate to meet the needs of these children. In some countries, like Poland and Spain, these provisions for the blind are better than those for the deaf, but in other cases, as in Portugal, the situation is reversed.

In most countries the ratio of pupils per teacher runs well below that for sighted pupils in regular schools. Sweden has a ratio of 5 pupils per teacher, and West Germany 7. England, with a specified maximum of 15 per teacher, actually has an average of 7.3 blind pupils per teacher, and only 5 per cent oversize classes. Poland specifies a maximum of 10 per teacher in nursery schools and 12 in elementary schools, but in actual practice some classes are as small as 9.

The curriculum of schools for the blind is, in more and more countries, kept as close as possible to the curriculum of regular schools, with only those adaptations necessitated by the visual limitations, as in teaching the children to read and write and count with the Braille system. Most blind children are also taught to write, usually with Braillewriters. Music and physical education are frequently emphasized. In Norway, both boys and girls are given domestic science courses that emphasize the activities of daily living, in addition to stressing personal grooming and manners.

Vocational training for the blind is gradually undergoing some changes. There is a growing tendency, as in England, to confine truly vocational training to separate post-school courses in rehabilitation centers or specific vocational schools, while including such activities as music, typing, and craft work as a non-vocational part of the regular curriculum. It is still more common, however, to combine general and vocational education in the same program, with some supplementary training in a sheltered workshop.

The training itself is slowly becoming more diversified. There is a shift away from the traditional handicrafts, such as brushmaking, basketmaking, and chair-caning, to a variety of commercial and industrial activities, though a country with more limited resources may not have progressed beyond the simple crafts. For example, officers of the Lighthouse for the Blind in Greece are proud of the fact that as recently as 1958 the blind were given preferential government contracts for the brushes they make, a provision that was made in our own country as early as 1938 by the Wagner-O'Day Act. However, Greece is experimenting with other occupations, such as a course in poultry farming for blind boys where it has been found that the only sighted function they cannot perform is the reading of the thermometer in incubators. On the other hand Spain is discharging its responsibility for the blind by giving them a monopoly on the sale of lottery tickets.

The field of music represented an early extension of vocational possibilities for the blind. Even these opportunities have become contracted, however, leaving piano-tuning as the only activity in this field that is still considered fairly lucrative in most countries. Blind vocalists trained in conservatories are frequently soloists or chanters in churches, but it is usually necessary for them to have other employment as well in order to be able to make a living. The same is true for blind organists though there are still about 700 of them in the Catholic churches in France alone. Many of the vocalists and organists become piano teachers as well.

Massage was also a preferred vocational choice for a time until it tended to be supplanted by more modern programs of

physical therapy, training for which is more difficult for the blind to acquire than for sighted students. Switchboard operation and stenography are now more frequently available in training programs.

Some countries are beginning to classify industrial operations to determine those which are suitable for the blind with certain safety devices added to equipment. In general the more highly industrialized the economy and the lower the unemployment rate for the non-handicapped, the more varied are the occupational opportunities for the blind.

In nearly half the countries of Western Europe some special training is required for teachers of the blind. In fact next to the deaf, the blind are more likely to have teachers with special training than is any other group of handicapped persons. There are usually separate training requirements for those teaching music and crafts to the blind. The training for those teaching vocational subjects often includes less theoretical material than for teachers of academic subjects. The basic qualification for teaching the blind, as for teaching other kinds of handicapped children, is almost always preparation for elementary school teaching but actual experience in teaching sighted children is not required in most countries.

Whether or not special training is required, there are usually voluntary organizations, teachers' associations or special schools which offer incentive for the improvement of instruction by providing periodic workshops or conferences for teachers of the blind. Some teachers also get their formal training abroad when their own country lacks such a program, or attend special congresses and make study tours in other countries.

Occasionally, where the oldest and best organized program of training is that for the mentally retarded, the certificate secured from this course of training is accepted for all other special teaching, including that for the blind, which is true in the case of the "Scuola Magistrale Orthofrenica" in Rome, Italy.

The training in most cases is primarily in-service in nature, ranging from one to five years in length. The certificate or diploma is issued by the institution giving the training, except in France and Sweden, where it is issued by the national government.

The training for teachers of the blind in Europe should in most cases include more theoretical or academic work, in addition to the practical experience. Instructional quality would be improved by greater standardization of requirements and by placing the authority to issue diplomas in the Ministry of Education.

Teachers of the blind, like other special teachers, enjoy a higher salary scale in most countries than do teachers in regular schools. In Northern Ireland teachers of the blind and the deaf receive still another supplement. In Sweden these teachers are the only special-education teachers to receive a bonus since they are the only ones of whom special training is required. Even when no special training is mandatory for teachers of the blind, a bonus is sometimes given as an incentive to take an available training program.

A third of the countries report a serious shortage of special teachers in general. This shortage seems to occur in countries with favorable pay scales as well as in those without such inducements. Most countries, like Italy and Yugoslavia, report particularly acute shortages in rural areas.

In 9 out of 21 countries there are journals published specifically for the blind or those interested in the blind. In Belgium, Denmark, Finland, and France, there are publications for the blind and deaf jointly, one of the two in Finland being issued by an association of teachers of the blind and deaf. Two journals in England and one in Germany and Sweden are published by associations of teachers of the blind. Others are published by voluntary

societies or by individual institutions for the blind. Yugoslavia, in addition to the magazine *Social Thought* published by the Union of the Blind, produces the *Herald* in Braille letters for blind children. In Belgium many blind children subscribe to tape-recorded magazines.

In only five countries—England, Finland, France, Germany, and Sweden—are there professional associations specifically for teachers of the blind, and two of these, in Finland and France, are for teachers of the blind and deaf combined. Otherwise, teachers of the blind affiliate themselves with general teachers' associations.

Most countries recognize that changes need to be made in existing provisions for the blind child. The large institution is being broken down more and more frequently into smaller units, instead of one large national school, and attempt is being made to provide several smaller schools better located geographically. The purpose is to bring the schools within weekend commuting distance of the children's homes, and thus maintain closer ties with the family.

Limited experiments have been conducted for substituting foster parents for institutional care, as in Belgium. Programs are being diversified, so that instead of stressing the mechanical acquisition of facts and skills, youngsters are given a chance for well-rounded development, stressing a breadth of sensory experiences, general physical development, and social and emotional growth. These necessary changes are facilitated by the interest, cooperation, and support of numerous voluntary associations serving the blind. The diversity of these organizations is indicated by a list of such societies found in west Germany: the German Federation of the Blind; the Association for Blind Crafts; the German Association for the Welfare of Blind Handworkers; the Federation of Personnel in Educational Institutions for the Blind; German "Talking Books" for the Blind; the Association of Blind Workers; the Federation for the Interests of Industrial Blind Workers; the Union of the War Blinded; and the Association of German Teachers of the Blind.

It may be that the interests of the blind could be served more effectively by some greater integration of the efforts represented by these numerous organizations, but it is nonetheless true that most countries tend to have more than one organization serving this group. There is generally very satisfactory cooperation between these private agencies and the governmental agencies concerned with the blind.

The problems of the education of the blind are increasingly understood by European leaders in education, medicine, and social welfare, as well as by the general public. Enlargement of opportunity, particularly in the less advanced countries, presents the greatest challenge at the present time. It is very important that the more advanced countries continue to share their knowledge and resources through such organizations as the World Council for the Welfare of the Blind and the American Foundation for Overseas Blind. UNESCO as the United Nations agency most directly concerned should be urged to broaden its program of assistance and, as a first step, to appoint an expert in special education to its staff. Exchange of teachers, as well as visitation and study opportunities, should be expanded.

Better teachers, better curricula, and better public understanding, with consequent greater financial support, are responsible for the advances that have been made and will continue to be made in the education of blind children in Western Europe.

Some Aspects of Blindness

By Wilbert Paul Tyler, Teacher
Virginia School for the Deaf and the Blind

Introduction

Before setting forth the various aspects of blindness and their implications on the educational process, it first should be emphasized that the blind cannot be classified as a distinct and isolated category of individuals possessing similar personalities, intelligence, emotional problems, and other psychological tendencies. The presence of numerous variable factors make it evident that there is a high degree of heterogeneity among people who do not see. Because of the varying degrees of blindness, the differences in ages at onset of blindness, and the dissimiliar attitudes toward blindness on the part of the parents, blind people differ from each other in many respects even more than do seeing people.[1]

There are, however, many psychological and sociological factors that are direct results of blindness and are therefore present in many blind people. This makes it imperative that these factors be understood by those directing the educational, social, and vocational activities of the blind.

It must also be pointed out that there are exceptional visually handicapped individuals who have superior mental ability and who have made a normal adjustment. These individuals are few in number and therefore would not fall within the patterns discussed herein.

Although further research and experimentation are needed before a clear-cut picture of the blind can be established, present evidence indicates that the following conclusions are reasonably accurate.

Limitations of the Blind

Blindness restricts the individual in three main areas—the area of concepts, the area of locomotion, and the area of environmental control.[2]

Totally blind individuals must build their concepts of the world by the utilization of the remaining senses. In doing this they must rely almost exclusively on tactual and auditory perceptions and kinesthetic experiences. Tactual perception has definite limitations because of the necessity of direct contact with the objects to be observed. Many objects are inaccessible for direct contact, as, the sun or clouds; others are too large to be observed in totality, as, mountains or lakes; other objects are too small or fragile to be touched; objects in motion, live objects, and objects under certain circumstances do not lend themselves to observation by touch.

It must also be recognized that the sense of sight permits much more perceptual activity than does the sense of touch. Color perception is solely a visual function; therefore, the totally blind cannot perceive color at all. However, Hawkes points out that there is a common misconception on the part of the public that an individual who cannot see can determine the color of objects or the denominations of bills by the sense of touch; this of course, is not true.[3] The blind do acquire substitute ideas for colors through verbal and emotional association. These ideas do help in communicating in common terms with the seeing, though not on the basis of common experiences.[4] These limitations in the perceptual field would necessarily result in a restricted range and variety of concepts of blind individuals.

A person who does not see is also restricted in his ability to get about. This restriction implies a two-fold handicap in that it limits the blind in his locomotion and also makes him dependent upon the assistance of others, thus affecting his social

relationships and attitudes in varying ways and degrees. A blind person cannot get about by himself nearly so much as the seeing individual in exploring and altering his environment; therefore, he is exposed to a reduced number and variety of experiences. This limitation of experiences exerts a great influence on the over-all development of the blind child. It is, therefore, the responsibility of the educator to supply experiences and opportunities for activity for the blind child that most other children meet in the ordinary course of their development.

The visual handicap also restricts the ability to control the environment. The sense of sight permits a contact with and a control of the environment more quickly and to a greater extent than all the other senses. It overcomes distances and gives immediately the details and relationships of form, size, and position. Lack of sight cannot inform the individual about his situation within the environment by any rapid process as just glancing around. The clues acquired through hearing and touch experiences give very little assistance to the blind individual in controlling his environment and his relationship to it. As a result he becomes somewhat detached from the physical and social world about him. This detachment affects him in various ways during the course of his development. As an infant he is not enticed to crawl toward objects as a seeing child does unless he is made aware of these objects by other sensory impressions. He is unable to acquire behavior patterns on the basis of visual imitations. This often leads to the development of many manneriams and makes conforming with the group from childhood a much more difficult task. The isolating effects of this detachment also restrict the child in controlling his environment.[5]

There are many other implications centered around these three areas of restrictions. Some will be discussed in the next section and others will be left to future research and experimentation with the hope that much beneficial evidences will be uncovered in this most neglected field.

Emotional Problems of the Blind

Any major physical disability causes permanent changes in the emotional makeup of the individual. It is very difficult to generalize concerning emotional problems of blindness since much depends upon age at onset of blindness, the individual's tempermament, and his family background. However, many factors are evident in most of the cases observed.[6]

Sightless people have reason to live under greater nervous tension than the sighted. Sensory deficiency keeps attention at concert pitch. Everything demands greater vigilance and concentration. If he is walking, he must be always ready to stop or swerve suddenly to avoid some unexpected obstacle. His senses of hearing, smell, and touch must always be on the alert to protect him from danger or assist him in social relationships. The necessity of spending more nervous energy causes the individual to become fatigued more quickly and often leads to greater irritability and emotional instability.[7]

Another factor that precipitates nervousness and frustration in many blind people is the fact that they must be a distinct and definite part of two widely different worlds. They must live in a world of concepts based on their own experiences and interpretations and a world based on the experiences of seeing people. Their own world seems very natural and the only one for them if they did not have to come into continual contact with a very different one, a world of the seeing. They realize that the world of the seeing is the more important, so they attempt to forsake their own world for it; however, they are unable to do this completely. The result, according to

Burlingham, is a double psychic life which facilitates emotional maladjustment.[8]

More detrimental to his social and emotional adjustment, however, is the feeling of inadequacy and insecurity placed upon him by the limitations which were discussed in the previous section, and the attitudes of society toward him.

The visually handicapped person realizes very early in life that there are many things that he cannot do. He realizes that there is a chance that he cannot earn an adequate living or get about as freely as he would like and that he must depend upon others for many personal services. In the face of these constant limitations, it takes stern discipline of self to avoid such responses as self-pity or outright neurosis. Some, or all of these traits often develop.[9]

The blind child or adult does not live long in his social world without accepting, in greater or lesser degree, the attitudes of others toward him. The individual soon finds himself separate and apart from the group. This feeling of not belonging lays the groundwork for a complex pattern of self-regarding attitudes or social inadequacy, a pattern which is increased in width and depth by the individual's attempt to establish security and identity with the group.[10] This may result in compensation out of which is developed a compulsive personality in which he assumes the "I'll show you" attitude, or in retreat in which the individual seeks protection and develops a repressive personality. In any event, according to Cutsforth, blindness always affects personality.

The Role of the Teacher

The realization of certain limitations and inadequacies of the blind should not present a picture of hopelessness and despair to the teacher. Teachers should not minimize the seriousness of the loss of vision; however, they should strongly believe that "The spirit can be taught to transcend blindness, for it has been conquered by thousands and thousands of individuals."[11]

The importance of a positive attitude toward blindness on the part of the teacher is stressed by Cummings when he states, "You in the schools should examine your professional conscience once in a while, just what your attitude toward the blind is. Do you believe they are generally educable? Are you performing your tasks with a conviction that they will accomplish nothing? If you do not have faith in the efficacy of your work, in the trainability of your blind pupils, then you are in the wrong field."[12]

The teacher must not only be concerned with his own attitude toward blindness, but he must lead the blind to realize that blindness or impaired vision is a decided handicap; yet an adjustment that is desirable can be worked out if the visually handicapped individual learns to accept his limitations and to function as an adequate individual by making full use of his remaining senses.

In order that this attitude might be fully developed, the blind child must be provided with security and self-confidence. These qualities are inseparable—one cannot exist without the other. Without them there is no cure for most emotional ailments.

It is necessary that the child possess two kinds of security—internal security and external security. Internal security is that security the child feels about himself—his abilities or lack of abilities, his acceptance or lack of acceptance by the group, his successes and failures, etc. External security is the security offered him by his environment. Of internal security, the blind child has very little. That is why the security of his environment must of necessity be greater. The wrong type of external security, however, can decrease the amount of internal security. This is particularly evident when the parent or teacher is over protective or does more for the

blind child than he would for the normal child, thus making it impossible for him to gain self-confidence by doing and succeeding.

The blind child should be given an opportunity to do for himself and for others. Since he is limited in the things he can do, he should be allowed to perform the tasks he can do. Many teachers of the blind, in selecting a student to run an errand or to participate in some simple activity, will invariably choose a child with some sight, since the assignment will be more quickly and efficiently carried out. This, of course, is an injustice to the blind child. To him it is an inference of total helplessness and it is a major detriment to the development of self-confidence or internal security. The child should be given opportunities to succeed; and that success, even though it appears insignificant to the teacher, must always be followed by direct praise and approval. This will build and strengthen the child's self-confidence which is necessary to the internal security of the individual.

It is often necessary to modify or alter the environment to make it possible for the child to succeed. This is the function of the residential school for the blind. It takes the child from the well-meant but damaging sympathy of the family and friends, and places him in an environment that may be manipulated to meet his needs. It is the role of the teacher in the classroom to decide which modifications and which existing resources can function more adequately to satisfy these needs.

The teacher in planning a unit of work or any activity, curricular or extra-curricular, should keep before her the restrictions of the blind in the area of concepts. Too often the child is taught the meaning of words and interpretations of experiences through the teacher's visual concepts which are obviously beyond the pupil's realm of experience. Of course, if the blind are to live in a seeing world, they will need to know something of the concepts seeing people have of various phenomena; however, this should be secondary to the formulation of concepts based upon the actual experiential impressions available to the blind.[13] Models of every possible thing a sighted child would be familiar with automatically should be available. These models should be small enough that the child can encompass them with his hand if possible but, in any case, small enough that he can trace them readily and get a comprehensive picture.[14]

Social and other learning experiences must be planned and even created to afford the child without sight opportunity to build a world of concepts that is to some degree comparable to that of the seeing, experiencing at the same time a social and emotional growth stability.

Perhaps the greatest thing that a teacher can do for his sightless pupil is to develop his own capacity for enjoying his work and meeting new challenges. His greatest desire for his blind pupils is that they become equal to life as they find it, equipped for gracious, confident, and abundant living. It is to the satisfaction of that desire that our professional career is dedicated.

[1]P. C. Potts, ADJUSTMENT OF THE VISUALLY HANDICAPPED, New York, American Foundation for the Blind, 1941, p. 3.

[2]Berthold Lowenfeld, "Psychological Aspects of Blindness," ENCYCLOPEDIA OF PSYCHOLOGY, New York, P. B. Harriman, p. 56.

[3]Clarence Hawkes, "Some Common Fallacies about Blindness," *Outlook for the Blind*, 1915, pp. 373-374.

[4]Lowenfeld, op. cit., p. 57.

[5]Ibid, pp. 58-59.

[6]Helga Lende, WHAT OF THE BLIND, Vol. II, New York, American Foundation for the Blind, 1941, pp. 12-13.

[7]Ibid, 76.

[8]Dorothy Burlingham, PSYCHIC PROBLEMS OF THE BLIND, London (a photostatic copy of the manuscript given to American Foundation for the Blind by the author) p. 46 ff.

[9]Lende, op. cit., p. 13.

[10]Thomas Cutsforth, "Personality Crippling through Physical Disabiilty," *Journal of Social Issues*, Vol. IV, No. 4, 1948, pp. 62-63.

[11]Josef Cauffman, "The Rainbow's End," *The Towers*, Philadelphia, Overbrook School for the Blind, Nov. 1952, p. 1.

[12]Francis Cummings, "Coordination of School Curricula with Adult Rehabilitation Programs," PROCEEDINGS OF THE FORTY-FIRST CONVENTION OF THE AMERICAN ASSOCIATION OF INSTRUCTORS OF THE BLIND, Louisville, Kentucky, July 1952, p. 33.

[13]Neal Quimby, "Educational Trends in Schools for the Blind," PROCEEDINGS OF THE FORTY-FIRST CONVENTION OF THE AMERICAN ASSOCIATION OF INSTRUCTORS OF THE BLIND, Louisville, Kentucky, July 1952, p. 21.

[14]Cummings, op. cit., p. 32.

The President's Corner

By Donald W. Overbeay, President
American Association of Instructors of the Blind

The difference between a GOOD member of the AAIB and A member is that the former cares a great deal about the AAIB and wants to contribute time and talent as well as dues to its future growth. Being a good member is not easy. The demands placed upon the time and talents of administrators, supervisors, teachers and houseparents are not only numerous but exacting.

Nevertheless, many of us can be GOOD members of the AAIB. We can try to understand its purposes and policy. We can encourage persons interested in the educational welfare of visually handicapped children of school age to join.

The AAIB has twenty-two workshop groups. These groups are the heart of the AAIB and represent most of the membership. These groups need chairmen, co-chairmen, recorders and participants who effectively work together at conventions and during the biennium between conventions.

The AAIB has many committees which demand the best efforts of those who are appointed to serve on them. Only GOOD members can perform the duties and assume the responsibilities of those who serve on the program, membership, policy, standards, resolutions and other committees.

From time to time, AAIB sponsored workshops and regional meetings require the services of dedicated persons interested in blind children.

The International Journal for the Education of the Blind needs articles and items of interest if it is to continue publishing a good professional magazine.

Mr. Maurice Olsen, Executive-Secretary of the AAIB, needs your help. While he can and will assist you to an ever-increasing degree, he cannot be a "jack-of-all-trades and master-of-none". He needs the continuing help of GOOD members of the AAIB.

Sawdust from the Board

By Maurice Olsen, Executive Secretary
American Association of Instructors of the Blind

The regular annual meeting of the Board of Directors of the AAIB was held in Louisville, Kentucky, October 23 and 24, 1959. It was the first full Board meeting with the newly appointed Executive Secretary. Details of his position were discussed and clarified, since the creation of this new post was an entirely new step in AAIB history, and several questions of transitional procedure needed to be resolved. The Board worked long and late on the agenda, which included: (1) The Special Education and Rehabilitation Study; (2) The AAIB-AAWB Braille Authority; (3) The AAIB Scholarship Committee; (4) The ICEBY; (5) Memberships in the AAIB; (6) The 1960 AAIB Convention Program and 1962 Convention site; (7) AAIB Certification of Teachers; and (8) The White House Conference on Children and Youth.

The AAIB Board of Directors went on record to do everything they could to be helpful to the study being conducted by Congressman Elliott's Sub-committee on Special Education and Rehabilitation, and

they instructed the President to encourage AAIB members to represent the Association at each of the regional meetings planned in the study. Dr. Eber Palmer met with the Board and discussed the plans for the regional workshop and hearing of the Special Study in New York City, October 27-29. The Board discussed Federal legislation as it affects AAIB, paying particular attention to the APH legislative program and Government decisions which have excluded certain blind children from the benefits of the National Education Act. Dr. Edward Waterhouse, AAIB Legislative Committee Chairman, met with the Board to discuss recent legislative activity. Mr. Finis Davis met with the Board, but explained that the APH had no definite legislative program until the APH Trustees would draft such a program.

On announcement of Paul Langan's resignation from the AAIB-AAWB Braille Authority, the AAIB Board of Directors expressed appreciation of Mr. Langan's long and devoted service on the Joint Uniform Braille Committee and The Braille Authority, and affirmed the appointment by AAIB President D. W. Overbeay and AAWB President H. A. Wood of Mrs. Maxine Dorf to fill the vacancy on The Braille Authority created by the resignation of Mr. Langan. A list of "Procedures for the Braille Authority" was approved, and The Braille Authority was encouraged to resolve immediately the problem with regard to the Braille music code, so the printing of Braille music may be resumed at the APH. The Board favors a resolution to expand the present three-member Braille Authority to six members at the 1960 AAIB Convention.

Dr. Alton Kloss reported on the progress of the AAIB Scholarship Committee: three applications approved, two currently enrolled under the AAIB Scholarship Program, $1250 of the $10,000 Scholarship Fund obligated. The Board accepted Dr. Kloss' resignation from the Scholarship Committee with regret. The appointment of replacements on the Committee and chairmanship of the Committee is pending.

Dr. Edward Waterhouse reported recent activities of the ICEBY. Two AAIB members, Ross Huckins and George Heltzell, were appointed to a committee to explore the possibility of new types of AAIB members. The President was directed to appoint a Committee on Mobility and Travel, to explore needs and formulate a plan to strengthen the education offered blind children in this important area. W. M. Woolly reported on the 1960 Convention Program, and there was favorable discussion of the possibility of a hotel site for the 1962 AAIB Convention. Leo Flood met with the Board and reported recent activity in revising the AAIB teacher certification qualifications. Lois Cox reported on preparations for the White House Conference on Children and Youth.

It was passed unanimously by the Board that an amendment to the AAIB Constitution be presented at the 1960 AAIB Convention to increase AAIB dues annually, $1 per year, until a $10 level is reached. This is in line with the recent increases in NEA and AAWB dues to the $10 per year level, allowing, however, for a gradual increase to parallel the gradual increase in salaries in our field.

The AAIB Scholarship Committee, appointed by the President, to consider the development of a policy and plan for the distribution of monies received by the AAIB, has prepared the following preliminary report.

Scholarships for training of personnel for schools for the blind are available under the following general conditions:

1. Applicants must choose a college or graduate school where courses in special education are available. In the choice of college or university, preference should be given to an institution offering area courses for the blind. Preference will be given to new candidates entering the field. Consideration will be given to both under-

graduate and graduate students. Undergraduate awards are given only for junior and senior years.

2. Awards are made for one year, subject to consideration for subsequent year grants to recipients after review of grades and progress.

3. Awards range from $300 per year to $1500 per year, depending upon needs of applicants and available funds.

4. Each recipient of an award must sign a statement promising to teach visually handicapped children for at least one year after completion of their course of study.

The Committee would appreciate help in publicizing these AAIB Scholarships. All AAIB members can help by encouraging able prospects, who meet the above conditions, to make application.

Applications for Scholarships may be obtained from: Maurice Olsen, Executive Secretary, American Association of Instructors of the Blind, 2363 South Spring Ave., St. Louis 10, Mo.

Is Music of Therapeutic Value to the Blind?

By John Meldrum, Director of Music

Oklahoma School for the Blind

To discuss the question as to whether or not music may be considered as a therapeutic agent for the alleviation of the frustrations caused by blindness poses something of a problem for one who, for almost thirty-six years as Director of Music at the Oklahoma School for the Blind, has taught music merely as music without too much conscious regard for its emotional impact upon those who have come under his tutelage. This statement should not be taken to imply that I am utterly unconscious of the emotional impact of music on people in general, but merely to suggest that I have not been too much aware of any specific variation of such impact upon the blind as opposed to the fully sighted. Lest I completedly disqualify myself with regard to being at all capable of utterance on this subject, let me say that, during my teaching career, I have taught pupils who have run the gamut from total blindness to full vision and that, so far as the artistic and interpretive aspects of music are concerned, have made it a practice to approach them all alike. True, each individual presents problems that are peculiar to his own situation but, where lack of vision is a factor, it has been my philosophy to stress this lack as little as possible and thus to attempt to reduce frustration to a minimum. Furthermore, I have always been willing to leave the assessment of psychological and emotional deviations that might be inherent among the blind to those who are trained to evaluate and to deal with them—psychiatrists and social workers.

In seeking authoritative data for the preparation of this paper, I wrote to the Topeka Adjustment Center for the Blind, Topeka, Kansas, where I knew a study had been made on the adult level, and to the American Foundation for the Blind, New York, New York. The same pamphlet dealing with the Topeka study came from both sources and hence it may be assumed that this study constitutes the only effort in research on this subject to date. This study was prepared by Robert Unke-

This paper was read in its original form on February 24, 1959, at the Southwestern Division of the Music Educators National Conference, which met in Wichita, Kansas, February 22-25.

The contents of the paper have been edited and somewhat altered for the International Journal for the Education of the Blind at the request of the editor.

fer and supervised by W. L. Dauterman. The four categories of music activity were assumed to be creative, educational, recreational, and those activities for the development of manipulative skills.

Among other things, the study seemed to find that muisc therapy cannot be used successfully unless it is a part of a total program where a constant interchange of information among all therapists is assured both by the administrator's decision and by the staff's seeking attitude. Candidates for this study were selected through the usual procedures of individual interviews and testing. In addition to more obvious findings, it was discovered that selective listening for purposes of travel-training may be developed through hearing and identifying specific tone qualities of orchestral instruments.

David Ellis, an alumnus of the Oklahoma School for the Blind, and currently a social worker in the state of California, had this to say when asked concerning the value of music as therapy for the blind:

"1. Music offers a maximum of creative experience (which may be presumed to be important to everybody) and which may be of some importance to the blind because of restrictions in the use of visual artistic media.

"2. It offers a chance for a constructive group-participation experience."

Mr. Ellis should know whereof he speaks since he took the full music course at OSB and has since developed a very keen appreciation of all types of the finest in music.

At this point in the original paper, a rather full description of the music curriculum and departmental equipment was presented. Any such material would seem to be superfluous here but certain observations gleaned from the programs heard at the convention before which this paper was read appear to be timely.

Time was when the music curricula in schools for the blind might have been compared favorably with those in our public school and even our universities. Things have been changing over the years, and we now find high school and university bands no longer to be mere mediocre "marching bands" but concert organizations that perform the best contemporary and classic band literature with skill and understanding. No longer are high school and university symphony orchestras bands of musicians found to be flirting with the pitch, ragged in passage playing, and tonally inexpert. Today we hear them playing with good tone, commendable precision, and responsive to nuances as demanded by their directors. They also perform the finest in classic and modern symphonic literature. Choral groups in our elementary and secondary schools and universities give similar accounts of themselves, and all such groups derive great benefit through participation in these activities. Hence, it was with regret that we heard music in our schools attacked as among the frills of our educational system, and we would take this opportunity to state that, in our humble view, the teaching of fine music is no more a frill of education than is the teaching of fine literature, poetry, or drama. Music theory is being increasingly emphasized throughout our educational system and, as theory is the grammar of music, we are glad to note this trend.

Music study has always been an important element in the curricula of schools for the blind. This is not, as many wrongly assume, because the visually handicapped are per se musically endowed by Providence beyond other people. Such an assumption is grossly erroneous and should be discouraged. The first thing many parents request when entering their children in our school is that they be given music. They come to us with exalted tales as to how musical their children are and how they could pick out tunes on the piano at

the age of four, etc. Before accepting pupils for special music study, we test them thoroughly as to oral perception and rhythmic response and find that these tests do not always provide conclusive evidence of musical talent. We reserve the Seashore tests for the measure of musical talents until pupils are of junior and senior high school age. We also use a series of ten LP recordings put out by Rutgers University that provides many fine exercises in melodic dictation, interval and triad recognition, rhythmic detection, and lectures on major scales and keys and the construction of all types of intervals and triads. We also use excellent recordings on organ structure and sound. A series of five LP recordings provide excellent material for studying the sound, use, and technique of orchestral instruments. These include descriptive lectures on all of the instruments plus illustrations of their use by excerpts from the greatest orchestrators of all time.

Music is taught at OSB primarily for its cultural value. True, we have had students who have made a profession of teaching or performing but they are few in number. Others have started with this aim in view but have been diverted either by marriage or by finding positions offering more tempting remuneration and far less of a struggle to become established. I would not decry either of these methods of escape from music teaching, but it is frequently discouraging to bring students to a point where one feels justified in recommending a career in music to them only to have them deviate into some other field of activity.

Recently our local music club had, for one of its programs, a discussion and demonstration of music therapy. Participating were members of the nursing corps and staff from our local hospitals and from the Veterans' hospital. Our school was asked to provide a group of girls to appear on this program as a demonstration of our work in this area. This I refused to do. Except for being totally or partially blind, these were fine, normal high school students, and I refused to have them publicly marked as examples of therapeutic subjects. I was publicly criticized for assuming this position by the program leader, a registered nurse, but still feel that my stand in this matter was correct.

This is not to say that music for our children has no therapeutic value. Two girls come to mind who lost their vision completely while attending school and I feel that music and their avowed interest in it contributed greatly to the almost perfect adjustment they made to their altered situation.

This panel is considering four categories among so-called "Exceptional children": The gifted, the mentally retarded, the emotionally disturbed, and the blind. All four types could be recognized within our student body at the present time. Space will not permit the mention here of other specific cases, but it can be said that many who are not definitely talented derive satisfaction and emotional release through the study of piano or some other instrument.

Mrs. O. W. Stewart, a former Superintendent of OSB, once remarked to a highly successful music teacher who is an alumnus of our school, "Very few of our students catch the vision that Mr. Meldrum holds for them in the field of music." I have thought of this statement many times since it was related to me and must admit that it is worth consideration. I do know this, however: It is highly gratifying to realize what an important part the appreciation of music of all types plays in the lives of many of our alumni and it is pleasant to hope that at least a small part of the foundation for this interest was laid at the Oklahoma School for the Blind.

Readability of Large Types
A Study of Type Sizes and Type Styles

By Carson Y. Nolan, Ph.D.
Director of Educational Research
American Printing House for the Blind

Introduction

Books printed in large type are required by a number of children in this country. This population of visually-handicapped children is quite heterogeneous in regard to visual disability, visual acuity and other characteristics. It is not possible to mass produce large type textbooks which meet the visual requirements of every child in this group. However, it does seem possible to produce texts that will meet the visual requirements of the majority of these children.

A number of characteristics of large-type books should be studied to determine which are best suited to the majority of children. Among these are illustrations, paper color, and for printing — type size, type face, leading and line length. The present study concerns two characteristics of type: face and size.

Appropriate type size for large-print texts has long been a subject of debate. As a result of studies and surveys (1, 2, 4) varying conclusions have been reached. While the possibility of general use of 36-point type has been ruled out, findings do not clearly demonstrate whether 24-point type or 18-point type is best. This is one question to be explored in this study.

General agreement exists that bold type is most suitable. Since most large type books are reproduced from regular school books through photo-offset printing, the type faces employed are those regularly used in schoolbooks. Little evidence exists on the comparative usefulness of these types or other types for visually handicapped children. In a recent paper,[5] Prince has described a type face which appears to be more legible than common schoolbook types. Whether visually- handicapped children can read this type faster than common types is a second question to be explored in this study.

Procedure

Subjects: The groups consisted of 264 children of both sexes, grades 4-12, ages 8 years, 9 months — 20 years, 10 months, who had I.Q.'s of more than 69, or who were not judged severely retarded in reading by their teachers. These children were enrolled in forty-seven public schools with sight-saving classes and three residential schools for the blind in Ohio, Illinois and Kentucky. All children were currently reading 18-point type size or greater. Testing was statewide in Ohio and Illinois with the exclusion of the Chicago and Cleveland school systems. In Kentucky children were tested only in Louisville.

One-hundred-thirty-two of the children tested were legally blind with vision in the better corrected eye ranging from 20/200 to 2/200. The remaining 132 children had vision ranging in the better corrected eye from 20/20 to 20/160.

Children at each visual level were divided into four experimental groups. This was done by listing children alphabetically by grade and school, and alternately assigning them to each of the four groups. Comparisons of the eight groups for vision and other characteristics can be found in Table 1.

Experimental Design: A treatments x treatments x levels design was used (3, p. 121). The treatments consisted of com-

TABLE 1

DESCRIPTIVE STATISTICS FOR COMPARATIVE AGE, INTELLIGENCE, GRADE, READING COMPREHENSION, AND VISUAL ACUITY OF THE GROUPS USED IN THE STUDY.

		GROUPS			
AGE		18 C	18 X	24 C	24 X
Blind	Mean	13.31	13.03	13.55	13.04
	S.D.	2.41	2.24	2.14	2.41
Non-Blind	Mean	12.75	12.80	12.64	12.66
	S.D.	2.34	2.12	2.10	2.27
I.Q.					
Blind	Mean	99.60	99.10	98.03	97.89
	S.D.	22.35	14.24	15.32	12.26
Non-Blind	Mean	105.47	96.76	99.79	99.36
	S.D.	17.95	12.40	18.91	15.41
GRADE					
Blind	Mean	7.15	6.39	6.55	6.21
	S.D.	2.31	2.24	1.91	2.30
Non-Blind	Mean	6.33	6.12	5.97	6.21
	S.D.	2.02	1.80	1.62	2.05
READING COMPRHENSION					
Blind	Mean	79.76	83.70	84.21	83.15
	S.D.	30.16	19.90	19.22	22.64
Non-Blind	Mean	89.06	89.55	85.48	88.97
	S.D.	23.10	11.84	22.56	15.79
VISUAL ACUITY					
Blind	Median	20/200	20/200	20/200	20/200
Non-Blind	Median	20/70	20/80	20/70	20/80

parisons of type size and type face. Two visual levels were employed: a. Legally blind children and b. Children with visual handicaps less severe than legal blindness.

Variables studied: The experimental type (X type) was compared with a type face in common use — Antique with Old Style (C Type). The X Type was a sans-serif type with two special characteristics: (a) If the width of the limb of a lower case letter is taken as a unit, most letters will be found to be 4 units wide and 5 units high, and (b) Spacing between letters within words in two units. A commercially available type — metrolite medium — closely approximated these standards and was used for the purposes of this study. The type sizes compared were 18-point and 24-point.

Criterion measure: Reading speed was selected as the criterion for the study. The measure of this criterion was a test composed of Forms 1, 2 and 4 of Test Type A of the 1942 edition of the Gates Basic Reading Test, Grades 3-8. This composite test consisted of seventy-two paragraphs of approximately ninety words each. The subject's task was to read each paragraph and answer a short question concerning it by underlining one of five choice words. Therefore, a comprehension measure as well as a speed score was available for each child.

The test was linotyped in both type

faces in 18-point. It was then reproduced in both types in both 18- and 24-point through the photo-offset process. Tests in 18-point were set with 12-point leading, which was proportionately increased for the 24-point tests. Line length for all tests was set at 8.5 inches.

Test procedure: Time for the tests was set at 30 minutes. All testing was conducted by two examiners who visited the schools. Children were usually tested in a special room set aside for this purpose, although on a few ocasions it was necessary to test them in their classrooms with other children present.

Results

While the method adopted for assigning subjects to groups tended to equate the eight groups of the study for all extraneous variables, further control was desirable. Since the test provided reading comprehension score for each subject, it was possible to statistically equate the groups on this variable through application of analysis of covariance. (3, p. 317).

Table 2 presents the mean number of paragraphs read by the group before and after adjustment was made for group differences in reading comprehension. Results of analysis of covariance of these data are presented in Table 3. The analysis of covariance reveals that differences significant at greater than the .5% level of confidence exists between the reading speeds for type and visual levels. No significant effect on reading speed can be attributed to the other variable, type size, or to any of the interactions.

Discussion

Examination of the adjusted means in Table 2 reveals that in every case visually handicapped children were able to read the control type faster than the experimental type. While it is not possible to determine the reason for these differences from this study, it is suggested that the greater line length resulting from use of the X type is a major cause.

When the adjusted group means for type size are compared, in every case 18-point is read faster than 24-point. However, our analysis shows that these differences are too small to be statistically significant. Therefore, the conclusion to be drawn from the data is that the groups of visually handicapped children studied could read both types with equal speed.

As could be expected, the groups with better vision read faster than those with poorer vision. Mean number of paragraphs read by legally blind children was 30.85 as compared with 36.32 for non-legally blind children. These means, when converted to words-per-minute, are 91.10 wpm for legally blind childden and 105.93 wpm for non-legally blind children. These

TABLE 2

MEANS FOR GROUPS OF CHILDREN READING TYPE OF FOUR DIFFERENT CHARACTERISTICS
(N = 33)

		Type Size		Type Size	
	Type	18 pt.	24 pt.	18 pt.	24 pt.
		Paragraphs Read		Paragraphs Read Adjusted for Group Differences in Comprehension	
Legally Blind	C	31.51	31.90	33.85	32.42
	X	30.78	27.81	29.31	27.81
Not Legally Blind	C	42.21	36.93	42.94	37.89
	X	34.33	33.24	32.66	31.81

TABLE 3

RESULTS OF ANALYSIS OF COVARIANCE FOR GROUP MEAN READING SPEEDS.

Source of Variance	Sums of Squares*			Reduced Mean Square		F**
	Y	XY	X	df	Y	
Type	1108	−1504	2041	1	2655	10.88
Size	330	9	0	1	322	
Visual Level	2516	698	193	1	1969	8.07
Type x Size	3	−27	268	1	71	
Type x Visual Level	189	−30	5	1	216	
Size x Visual Level	59	31	16	1	36	
T x S x V.L.	235	248	265	1	74	
Error	82914	49398	119494	256	244	

* Y — reading speed, X — comprehension score, XY — products.

** The F-ratios reported are significant beyond the .5% level of confidence. No other F-ratios were statistically significant.

means somewhat underestimate actual reading rates because of inclusion of the reading comprehension task in the test.

Summary

Two-hundred-sixty-four large type readers, ages 8 years, 9 months to 20 years, 9 months, and grades 4 through 12 were utilized in a study of type charactertistics using a treatments x treatments x levels design. Findings were that both legally blind and non-legally blind groups read 18-point type as rapidly as 24-point type, and that a common textbook type was read more rapidly than an experimental type.

Bibliography

1. Fortner, Ethel N. Investigation of large type books. **Proceedings, American Association of Workers for the Blind**, 1943, 78-81.
2. Hathaway, Winifred. **Education and health of the partially seeing child.** New York, Columbia University Press, 1954, p. 106-107.
3. Lindquist, E. F. **Design and analysis of experiments in psychology and education.** New York, Houghton Hifflin Company, 1953.
4. Luckiesh, M. and Moss, F. K. Visual tasks in sight-saving classes. **American J. Ophthal.** 1936, 19.
5. Prince, J. H. Relationship of reading types to uncorrectable lowered visual acuity. **Amer. J. of Optom.**, 1957, 34, 581-595.

Teaching Arithmetic to the Partially Seeing*

By Helen Auerbach

Teacher of the Partially Seeing, T. M. Pierce School, Philadelphia

Today arithmetic is taught with major emphasis on meaning and understanding rather than on drill and memorization. In working with the partially seeing our philosophy and methods are basically the same as those employed with children in general. Certain adaptations are of course necessary.

Not too long ago we sought to place our boys and girls in employment not requiring much eye use. Higher schooling was largely of the vocational type. The trend today is toward training them for

*Presented at the 50th Anniversary Conference, National Society for the Prevention of Blindness, Philadelphia, March 12, 1958, and reprinted from the summer, 1958, issue of The Sight-Saving Review.

positions in the same fields as the normally sighted. For this they must be prepared to meet certain standards.

In Philadelphia our classrooms are specially equipped to make these children visually comfortable. The walls and woodwork are painted a restful pale green and excellent lighting floods the rooms. We have the large print books and much of the other equipment that has been designed to help these children learn.

We have 16 low vision classes and 13 for children with normal vision in our school. Our social actiivties are completely integrated. Recess, assemblies, outdoor play days, dramatics, entertainment involve participation as one group. For other subjects the partially seeing are organized in groups of approximately 12 children, according to age and grade, with a specially trained teacher for each group. These conditions give us an excellent opportunity to compensate for visual handicaps. We are able to work with small groups, within a small group, and with individual children.

Most of the many concrete and semi-concrete materials used today in the teaching of arithmetic can be adapted to the use of our children. When we find that the materials are too small we substitute larger ones. In the early grades, for instance, instead of counting and grouping with toothpicks we use tongue depressors. If discs from the supply list are too small, we make larger ones.

Basis of Teaching

Educators of today feel very strongly that an understanding of the principles underlying arithmetical processes is the goal for which to strive. Before our children reach the age of abstract thinking we must have woven in and around our teaching all the concrete and semi-concrete helps possible. The former include such objects as apples, oranges, spheres, cubes, discs, sticks, the abacus, fact finders and dissected discs. Among the semi-concrete are picturizations, representations in the form of charts, dots, strokes, circles, drawings and diagrams.

An experienced teacher in this field comes to know which of these many aids will be helpful to her pupils. All children profit from arithmetical work based on actual everyday experiences—shopping, making change, measuring, keeping accounts for school, collections, banking, scores in games. Not long ago emphasis was placed mainly on teaching through such experiences. But we now feel that meaningful learning through experiences is not in conflict with a planned, sequential arithmetic program. Arithmetic is a sequential subject; each new step depends upon previous steps and leads to new steps. For this reason the teacher must work closely with the children, making sure that each step is learned before the new one is presented.

Drill Follows Understanding

Many people say: "When we went to school we learned our tables. We knew them inside out and backward and forward, and what's more, we never forgot them!" Today educators agree that there is a definite place for drill in arithmetic. But drill must follow understanding. Drill *will* increase proficiency in operations already understood.

I have had the privilege of listening to a talk on arithmetic by Dr. John Clarke, the retired head of the Department of Teaching of Mathematics, of Teachers College, Columbia University, and the author of many books on the subject. He was asked during the discussion whether it wasn't better simply to drill slower children mechanically in number combinations, since they couldn't get the meaning anyhow. He told us then of an experiment that had been conducted on these very lines. Result: The children memorized what they were taught, but in

practical application did not know where to use the processes. Furthermore, over the summer they forgot what they had learned.

Drill without understanding is valueless. If a child knows that five sixes are 30 and that six fives are 30 how much more intelligent and helpful it is for him to understand that one means five bundles of six and the other means six bundles of five. Two 15's are 30 and 15 two's are 30. Though the answer is 30 in each case, the concept is entirely different.

Encouraging the Child

It is also important for us to build up in the child an attitude of *liking* arithmetic. This is fostered by giving each his attainable goal. The old saying that nothing succeeds like success is very apt here. Success is especially necesarry for our children, who are often sensitive because of their handicaps. The challenge to the teacher is to see that one child doesn't find the goal so difficult that he becomes discouraged, or that another does not find it so easy that he is bored.

Among the aids which we use in teaching are large, colorful charts with bold lettering, illustrating simple exercises in addition, subtraction, multiplication, fractions, etc. These aids have been invaluable in our classes. We keep them on the walls and we may go back to them again and again. If a child is unsure in a process and we feel that the charts will help him understand, we continue to use them.

Some children need these helps over a longer period of time than others, since all do not develop at the same speed. We know that in arithmetic they do not grow automatically. Growth depends upon the teacher, the instructional materials and the child's understanding. Our pupils need competence in computation; those who think things out achieve the greatest satisfaction and progress.

We try to go along, then, with understanding and patience. Ever and always I remind myself as a teacher—especially as a teacher of the handicapped—of a quaint old saying:

Learning by the yard is hard
But inch by inch, it's a cinch.

TO PUT IT BRIEFLY

News and Views from the Field

Journalistic adage: "Be brisk, be brief, be bright, be right!"

AFOB Sends Educational Consultant to the Philippines

Sam Ashcroft, Assistant Professor of Special Education at Peabody College for Teachers, has been assigned to the Bureau of Education in Manila by the American Foundation for Overseas Blind to prepare a detailed plan for providing a program of education for blind children in the regular public schools. With only one school furnishing special education for the blind in the whole of the Philippine Islands, and an estimated population of 9,000 blind children of school age, the Government faces a serious problem in providing educational facilities to meet this great need. Utilizing the existing village and provincial schools, on an itinerent teacher and special class basis, appears to be the only practical approach of providing any immediate relief for the blind children who presently have no opportunity for any formal education.

Mr. Ashcroft is known to many AAIB members, having been Principal of the

Iowa Braille and Sight Saving School and, more recently, Educational Research Director of the APH, before assuming his present position at Peabody. Mr. Ashcroft has been granted a three-months' leave of absence by Peabody College to accept the AFOB post, and will resume his work in Nashville in January, 1960, upon the completion of the Manila assignment.

Paul J. Langan
Counselor for the Far East
American Foundation for Overseas Blind

1960 White House Conference

The whole range of emotional, physical and social problems facing American youth will undergo microscopic scrutiny at the Golden Anniversary White House Conference on Children and Youth according to a program approved by the Executive Committee of the President's National Committee, its Chairman, Mrs. Rollin Brown, of Los Angeles, announced on September 15. "When the 7,000 participants meet in Washington next year, they will find set before them the facts on which they will base their recommendations for citizen action for the next ten years," Mrs. Brown declared.

The White House Conference tradition, which commenced in 1909 under President Theodore Roosevelt, and which has been continued every decade since, has produced the United States Children's Bureau, Federal and State child labor laws, and has influenced virtually every other forward development expressing this country's concern for its young. With 80 per cent of the states reporting on their primary "concerns," it is already clear that more people in the country are disturbed over juvenile delinquency and its companion problems than with any other field of interest.

The subject matter of the Conference is divided into two main areas — "The World Around the Young" — which represents the external influences which affect young people, and "The Young in the World" referring to the problems and needs of individuals. At the Conference, doctors, lawyers, educators, social workers and representatives of every discipline and special interest field will sit down with laymen to investigate the needs of youth and to develop a series of recommendations that will aid in expanding the creative potential of youth while meeting their special problems.

This is the sixth time in 50 years that an American President has called on the nation to pause and assess the total needs of youth. Every ten years since 1909, when the first White House Conference was held, this "perspective" has been taken. President Eisenhower called the 1960 Conference on May 27, 1958.

Ephraim R. Gomberg, Executive Director of the Conference, emphasized that "the Conference is more than a five-day meeting in Washington. It is an eleven-year process of study and action — one which has already commenced in every state and will continue until the next Conference in 1970." The purpose of this Conference is to "promote opportunities for children and youth to realize their full potential for a creative life in freedom and dignity."

Results of a nation-wide survey, released recently by the Golden Anniversary White House Conference on Children and Youth, point to juvenile delinquency as the number one youth problem in the United States. Prevention and treatment of juvenile delinquency is the subject that tops a list of 40 major "areas of concern" reported by 45 states with committees preparing for the White House Conference, which will be held March 27-April 2, 1960, in Washington, D. C. Second in frequency of mention is the closely related subject of the emotionally disturbed child, listed by 32 states. Third, with 29 mentions, is the problem of the retarded

child. Far down the list are problems stemming from such new social phenomena as television-watching, teenage drinking and driving, and radiation hazards.

The White House Conference on Children and Youth was called by President Eisenhower "to see that we prepare today's children well for life in tomorrow's world." It is the sixth decennial White House Conference on children held since 1909. More than 2,000,000 people are involved in preparatory work throughout the United States, participating in surveys, polls, town meetings, seminars and other group activities organized by the committees in every state.

In the list of 40 major concerns, all of which will be discussed at the 1960 Conference, handicapped children is ranked 7th in importance, and is mentioned by 22 states.

Order of Importance	Subject	Number of states in which it is a major concern (45 states reporting)
1.	Juvenile delinquency (prevention and/or treatment)	39
2.	Emotionally disturbed children (diagnosis and treatment)	32
3.	Retarded children (treatment and training)	29
4.	Religious and spiritual life of children	25
5.	Establishing values and ideals in children	24
6.	Improving the school curriculum	23
	Vocational guidance services	23
7.	Handicapped children (treatment, education, rehabilitation)	22
	Services to help keep families together	22
	Physical health and fitness	22
8.	School drop-outs	21

Other subjects, mentioned with less frequency by state groups, are not listed, but include such items as teen-age driving, drinking, influence of television, family irresponsibility, etc.

Appointment

Robert W. Tegeder became Superintendent of the Utah Schools for the Deaf and the Blind in July following the death of Mr. Harold W. Green, who was Superintendent until June 27th, on which day he was killed in an automobile accident while traveling to Colorado Springs, Colorado, to attend a convention of the American Association of Instructors of the Deaf. Mr. Tegeder had served for two years as Principal in the Utah School prior to his appointment as Superintendent.

Mr. Tegeder came to the Utah Schools for the Deaf and the Blind from the Lutheran School for the Deaf in Detroit where he had taught for seven years. He has his bachelor's degree from Concordia Teachers College, Chicago, Illinois, and a Master of Education degree from Wayne University in Detroit, Michigan. Both he and his wife are natives of Jacksonville, Illinois. They have four children.

Survivors to Mr. Green, who had served at Utah as Superintendent for five years, are his wife, Venda; two married daughters, Patricia and Jolene; and a son, Michael, age 17, at home. Mrs. Green was with her husband at the time of the accident, but was not seriously injured.

V. R. Carter, Editor
The International Journal for the Education of the Blind

The International Journal for

THE EDUCATION OF THE BLIND, INC.

D. W. Olson, Jr., M.S., *President*
John M. Wallace, *First Vice-President*
Lois V. Cox, *Second Vice-President*
E. J. Wood, M.A., *Secretary-Treasurer*

BOARD OF TRUSTEES

C. R. K. ALLEN, M.A.
W. E. ALLEN
F. M. ANDREWS, M.A., L.H.D.
STEWART E. ARMSTRONG
B. L. BERHOW
V. E. CARTER, M.Ed.
JOSEF G. CAUFFMAN
F. R. DAVIS
JOHN W. EAKES, M.A., M.B.A.
LEO J. FLOOD
MERLE E. FRAMPTON, Ph.D., LL.D., Litt.D.
W. C. GILL, M.Ed.
JESSIE R. GREAVES, Pd.D., L.H.D.
W. A. HACK, M.A.
GLENN R. HARRIS, M.A.
GEORGE HELTZELL, M.A.
L. P. HOWSER
H. D. JEFFREY
FRANK JOHNS, JR.
ALTON G. KLOSS, Ed.D.
RAYMOND E. LONG
BERTHOLD LOWENFELD, Ph.D.
JOHN C. LYSEN, M.A.
E. A. McBRIDE
C. E. MacDONALD, L.L.B.
F. G. NELMS, M.Ed.
D. W. OLSON, JR., M.S.
DONALD W. OVERBEAY, M.A.
EBER L. PALMER, M.A., LL.D.
EGBERT N. PEELER, M.A.
NEAL F. QUIMBY, Ed.D.
EDWARD W. REAY, M.A., M.S.
JERRY R. REGLER, M.Ed.
W. G. SCARBERRY, Pd.D.
HUGO P. SCHUNHOFF, Ed.D.
ROY M. STELLE, M.A., M.S.
ROBERT H. THOMPSON, M.A., Pd.D.
EDWARD W. TILLINGHAST, M.A., M.B.A.
W. LAURENS WALKER, LL.D.
JOHN M. WALLACE
EDWARD J. WATERHOUSE, M.A., Litt.D.
EVERETT E. WILCOX, M.Ed., Ed.D.
E. J. WOOD, M.A.
J. M. WOOLLY, M.S.

AMERICAN ASSOCIATION OF INSTRUCTORS OF THE BLIND, Inc.

OFFICERS, 1958-1960

Donald W. Overbeay, *President* (Superintendent, Iowa Braille and Sight-Saving School, Vinton, Iowa)

Lois V. Cox, *First Vice-President* (Principal, Maryland School for the Blind, Overlea 6, Md.)

J. M. Woolly, *Second Vice-President* (Superintendent, Arkansas School for the Blind, 2600 West Markham, Little Rock, Ark.)

Joseph J. Kerr, *Secretary-Treasurer* (Assistant Principal, Overbrook School for the Blind, 64th and Malvern Ave., Philadelphia 31, Pa.)

Mrs. Julia Hayes, Principal, The Oakhill School, 120 Holcomb St., Hartford 12, Conn.

Schuyler Houck, Teacher, Ohio State School for the Blind, 5220 N. High St., Columbus 14, Ohio.

Lee A. Iverson, Principal, Department for the Blind, Florida School for the Deaf and Blind, St. Augustine, Fla.

Robert H. Thompson, Pd.D., Superintendent, Michigan School for the Blind, 715 W. Willow St., Lansing 6, Mich.

Mrs. Margaret Traub, Teacher, Kentucky School for the Blind, 1867 Frankfort Ave., Louisville 6, Ky.

Everett E. Wilcox, Ed.D., Superintendent, Oregon School for the Blind, 700 S. Church St., Salem, Ore.

EXECUTIVE SECRETARY

Maurice Olson, M.A., 2363 South Spring Ave., St. Louis 10, Mo.

THE INTERNATIONAL JOURNAL FOR THE EDUCATION OF THE BLIND

1839 Frankfort Avenue
Louisville 6, Kentucky

Return Postage Guaranteed

Second-class postage paid at Louisville, Kentucky

SUBSCRIPTION FORM

Enclosed is $_____ for _____ subscriptions to *The International Journal for the Education of the Blind*, at $2:00 per year (foreign subscriptions $2.15 per year). Please send the ☐ ink-print edition; ☐ Braille edition (check number of each desired).

Name _____

Street Address _____

City, Zone, State _____

Fill out separate listing of name and address for each separate subscription.

The International Journal for the Education of the Blind
is published four times a year, during the months of
October, December, March and May

Send all subscriptions to:

The International Journal for the Education of the Blind
1839 Frankfort Avenue, Louisville 6, Kentucky